NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Dexter R. Matthews
Director

Pat McCrory
Governor

John E. Skvarla, III
Secretary

September 9, 2013

Jonnie Perry
4172A US 117 Alt
Dudley, NC 28333

RE: Water Supply Well Sampling Results – Perry Res/ Young Auto (NONCD0002839)
Well @ 4172A US 117 Alt
Dudley, NC 28333

Dear Mr. Perry:

Please find attached the Sample Analytical Results for a water sample collected from your well located at the address referenced above, on August 21, 2013. The sample was submitted for laboratory analyses for Volatile Organic Compounds (VOCs). There were no VOCs detected in your water supply well sample. As such, the use of your well water is considered safe and should not result in any adverse health effects.

If you have any questions or if I can be of any further assistance, please contact me at (919) 707-8353.

Sincerely,

Vincent Antrilli, Jr.

Vincent Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

Enclosure

CC: Wayne County Health Department

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Description: **4172A US117A**
Date Sampled: **08/21/2013 1125**
Date Received: **08/22/2013**

Laboratory ID: **OH22009-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	08/27/2013 1109	JJG		28088

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		84	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA** Laboratory ID: **OH22009-003**

Description: **4172A US117A** Matrix: **Aqueous**

Date Sampled: **08/21/2013 1125**

Date Received: **08/22/2013**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/30/2013 1502	JAC		28454

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

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E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **4172A US117A**
Date Sampled: **08/21/2013 1125**
Date Received: **08/22/2013**

Laboratory ID: **OH22009-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/30/2013 1502	JAC		28454

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		88	70-130

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Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

NCDENR - DWM - DSCA
217 West Jones St.
Raleigh, NC 27603
Attention: Vincent Antrilli

Project Name: **Loftin Farm/Perry Res**

Lot Number: **OH22009**
Date Completed: **09/03/2013**

Nisreen Saikaly
Project Manager

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

Case Narrative
NCDENR - DWM - DSCA
Lot Number: OH22009

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
NCDENR - DWM - DSCA
Lot Number: OH22009

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	Trip Blank	Aqueous	08/21/2013	08/22/2013
002	900 Loftin	Aqueous	08/21/2013 0955	08/22/2013
003	4172A US117A	Aqueous	08/21/2013 1125	08/22/2013

(3 samples)

Executive Summary
NCDENR - DWM - DSCA
Lot Number: OH22009

Sample Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page

(0 detections)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Description: **Trip Blank**
Date Sampled: **08/21/2013**
Date Received: **08/22/2013**

Laboratory ID: **OH22009-001**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	08/27/2013 1047	JJG		28088

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		86	40-170

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Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **Trip Blank**
Date Sampled: **08/21/2013**
Date Received: **08/22/2013**

Laboratory ID: **OH22009-001**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/30/2013 1247	JAC		28454

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
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B = Detected in the method blank
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Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **Trip Blank**
Date Sampled: **08/21/2013**
Date Received: **08/22/2013**

Laboratory ID: **OH22009-001**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/30/2013 1247	JAC		28454

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
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Organochlorine Pesticides by GC

Client: **NCDENR - DWM - DSCA**
Description: **900 Loftin**
Date Sampled: **08/21/2013 0955**
Date Received: **08/22/2013**

Laboratory ID: **OH22009-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8081B	1	08/24/2013 1822	PMS	08/22/2013 1633	27840

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Aldrin	309-00-2	8081B	ND		0.025	ug/L	1
gamma-BHC (Lindane)	58-89-9	8081B	ND		0.025	ug/L	1
alpha-BHC	319-84-6	8081B	ND		0.025	ug/L	1
beta-BHC	319-85-7	8081B	ND		0.025	ug/L	1
delta-BHC	319-86-8	8081B	ND		0.025	ug/L	1
alpha-Chlordane	5103-71-9	8081B	ND		0.025	ug/L	1
gamma-Chlordane	5103-74-2	8081B	ND		0.025	ug/L	1
4,4'-DDD	72-54-8	8081B	ND		0.025	ug/L	1
4,4'-DDE	72-55-9	8081B	ND		0.025	ug/L	1
4,4'-DDT	50-29-3	8081B	ND		0.025	ug/L	1
Dieldrin	60-57-1	8081B	ND		0.025	ug/L	1
Endosulfan I	959-98-8	8081B	ND		0.025	ug/L	1
Endosulfan II	33213-65-9	8081B	ND		0.025	ug/L	1
Endosulfan sulfate	1031-07-8	8081B	ND		0.025	ug/L	1
Endrin	72-20-8	8081B	ND		0.025	ug/L	1
Endrin aldehyde	7421-93-4	8081B	ND		0.025	ug/L	1
Endrin ketone	53494-70-5	8081B	ND		0.025	ug/L	1
Heptachlor	76-44-8	8081B	ND		0.025	ug/L	1
Heptachlor epoxide	1024-57-3	8081B	ND		0.025	ug/L	1
Methoxychlor	72-43-5	8081B	ND		0.10	ug/L	1
Toxaphene	8001-35-2	8081B	ND		0.25	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Decachlorobiphenyl		67	10-122
Tetrachloro-m-xylene		83	46-119

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Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Description: **4172A US117A**
Date Sampled: **08/21/2013 1125**
Date Received: **08/22/2013**

Laboratory ID: **OH22009-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	08/27/2013 1109	JJG		28088

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM	ND		3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		84	40-170

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Volatile Organic Compounds by GC/MS

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Description: **4172A US117A**
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Laboratory ID: **OH22009-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/30/2013 1502	JAC		28454

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **4172A US117A**
Date Sampled: **08/21/2013 1125**
Date Received: **08/22/2013**

Laboratory ID: **OH22009-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/30/2013 1502	JAC		28454

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		88	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - MB

Sample ID: OQ28088-001
Batch: 28088
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
1,4-Dioxane	ND		1	3.0	ug/L	08/27/2013 0455

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		98	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - LCS

Sample ID: OQ28088-002
Batch: 28088
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,4-Dioxane	50	51		1	103	43-173	08/27/2013 0304

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - LCSD

Sample ID: OQ28088-003 **Matrix:** Aqueous
Batch: 28088 **Prep Method:** 5030B
Analytical Method: 8260B (SIM iso.)

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,4-Dioxane	50	56		1	112	8.4	43-173	20	08/27/2013 0326

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28454-001
Batch: 28454
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	08/30/2013 1036
Benzene	ND		1	0.50	ug/L	08/30/2013 1036
Bromodichloromethane	ND		1	0.50	ug/L	08/30/2013 1036
Bromoform	ND		1	0.50	ug/L	08/30/2013 1036
Bromomethane (Methyl bromide)	ND		1	0.50	ug/L	08/30/2013 1036
2-Butanone (MEK)	ND		1	10	ug/L	08/30/2013 1036
Carbon disulfide	ND		1	0.50	ug/L	08/30/2013 1036
Carbon tetrachloride	ND		1	0.50	ug/L	08/30/2013 1036
Chlorobenzene	ND		1	0.50	ug/L	08/30/2013 1036
Chloroethane	ND		1	0.50	ug/L	08/30/2013 1036
Chloroform	ND		1	0.50	ug/L	08/30/2013 1036
Chloromethane (Methyl chloride)	ND		1	0.50	ug/L	08/30/2013 1036
Cyclohexane	ND		1	0.50	ug/L	08/30/2013 1036
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	0.50	ug/L	08/30/2013 1036
Dibromochloromethane	ND		1	0.50	ug/L	08/30/2013 1036
1,2-Dibromoethane (EDB)	ND		1	0.50	ug/L	08/30/2013 1036
1,4-Dichlorobenzene	ND		1	0.50	ug/L	08/30/2013 1036
1,3-Dichlorobenzene	ND		1	0.50	ug/L	08/30/2013 1036
1,2-Dichlorobenzene	ND		1	0.50	ug/L	08/30/2013 1036
Dichlorodifluoromethane	ND		1	0.50	ug/L	08/30/2013 1036
1,2-Dichloroethane	ND		1	0.50	ug/L	08/30/2013 1036
1,1-Dichloroethane	ND		1	0.50	ug/L	08/30/2013 1036
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	08/30/2013 1036
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	08/30/2013 1036
1,1-Dichloroethene	ND		1	0.50	ug/L	08/30/2013 1036
1,2-Dichloropropane	ND		1	0.50	ug/L	08/30/2013 1036
trans-1,3-Dichloropropene	ND		1	0.50	ug/L	08/30/2013 1036
cis-1,3-Dichloropropene	ND		1	0.50	ug/L	08/30/2013 1036
Ethylbenzene	ND		1	0.50	ug/L	08/30/2013 1036
2-Hexanone	ND		1	10	ug/L	08/30/2013 1036
Isopropylbenzene	ND		1	0.50	ug/L	08/30/2013 1036
Methyl acetate	ND		1	1.0	ug/L	08/30/2013 1036
Methyl tertiary butyl ether (MTBE)	ND		1	0.50	ug/L	08/30/2013 1036
4-Methyl-2-pentanone	ND		1	10	ug/L	08/30/2013 1036
Methylcyclohexane	ND		1	5.0	ug/L	08/30/2013 1036
Methylene chloride	ND		1	0.50	ug/L	08/30/2013 1036
Styrene	ND		1	0.50	ug/L	08/30/2013 1036
1,1,2,2-Tetrachloroethane	ND		1	0.50	ug/L	08/30/2013 1036
Tetrachloroethene	ND		1	0.50	ug/L	08/30/2013 1036
Toluene	ND		1	0.50	ug/L	08/30/2013 1036
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	0.50	ug/L	08/30/2013 1036
1,2,4-Trichlorobenzene	ND		1	0.50	ug/L	08/30/2013 1036
1,1,2-Trichloroethane	ND		1	0.50	ug/L	08/30/2013 1036
1,1,1-Trichloroethane	ND		1	0.50	ug/L	08/30/2013 1036

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ28454-001
Batch: 28454
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Trichloroethene	ND		1	0.50	ug/L	08/30/2013 1036
Trichlorofluoromethane	ND		1	0.50	ug/L	08/30/2013 1036
Vinyl chloride	ND		1	0.50	ug/L	08/30/2013 1036
Xylenes (total)	ND		1	0.50	ug/L	08/30/2013 1036

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		89	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28454-002
Batch: 28454
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	119	60-140	08/30/2013 0904
Benzene	50	53		1	105	70-130	08/30/2013 0904
Bromodichloromethane	50	54		1	108	70-130	08/30/2013 0904
Bromoform	50	53		1	106	70-130	08/30/2013 0904
Bromomethane (Methyl bromide)	50	44		1	88	60-140	08/30/2013 0904
2-Butanone (MEK)	100	110		1	111	60-140	08/30/2013 0904
Carbon disulfide	50	61		1	122	60-140	08/30/2013 0904
Carbon tetrachloride	50	54		1	108	70-130	08/30/2013 0904
Chlorobenzene	50	52		1	104	70-130	08/30/2013 0904
Chloroethane	50	58		1	117	42-163	08/30/2013 0904
Chloroform	50	53		1	106	70-130	08/30/2013 0904
Chloromethane (Methyl chloride)	50	56		1	112	20-158	08/30/2013 0904
Cyclohexane	50	56		1	112	70-130	08/30/2013 0904
1,2-Dibromo-3-chloropropane (DBCP)	50	56		1	113	70-130	08/30/2013 0904
Dibromochloromethane	50	53		1	106	70-130	08/30/2013 0904
1,2-Dibromoethane (EDB)	50	53		1	106	70-130	08/30/2013 0904
1,4-Dichlorobenzene	50	52		1	105	70-130	08/30/2013 0904
1,3-Dichlorobenzene	50	53		1	106	70-130	08/30/2013 0904
1,2-Dichlorobenzene	50	54		1	108	70-130	08/30/2013 0904
Dichlorodifluoromethane	50	44		1	88	60-140	08/30/2013 0904
1,2-Dichloroethane	50	55		1	110	70-130	08/30/2013 0904
1,1-Dichloroethane	50	53		1	105	70-130	08/30/2013 0904
trans-1,2-Dichloroethene	50	55		1	111	70-130	08/30/2013 0904
cis-1,2-Dichloroethene	50	56		1	111	70-130	08/30/2013 0904
1,1-Dichloroethene	50	54		1	109	70-130	08/30/2013 0904
1,2-Dichloropropane	50	53		1	107	70-130	08/30/2013 0904
trans-1,3-Dichloropropene	50	53		1	106	70-130	08/30/2013 0904
cis-1,3-Dichloropropene	50	53		1	105	70-130	08/30/2013 0904
Ethylbenzene	50	54		1	109	70-130	08/30/2013 0904
2-Hexanone	100	100		1	104	60-140	08/30/2013 0904
Isopropylbenzene	50	55		1	110	70-130	08/30/2013 0904
Methyl acetate	50	58		1	116	15-128	08/30/2013 0904
Methyl tertiary butyl ether (MTBE)	50	55		1	110	70-130	08/30/2013 0904
4-Methyl-2-pentanone	100	110		1	111	60-140	08/30/2013 0904
Methylcyclohexane	50	51		1	102	70-130	08/30/2013 0904
Methylene chloride	50	57		1	114	70-130	08/30/2013 0904
Styrene	50	55		1	110	70-130	08/30/2013 0904
1,1,2,2-Tetrachloroethane	50	55		1	110	70-130	08/30/2013 0904
Tetrachloroethene	50	52		1	105	70-130	08/30/2013 0904
Toluene	50	53		1	107	70-130	08/30/2013 0904
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	100	70-130	08/30/2013 0904
1,2,4-Trichlorobenzene	50	52		1	104	70-130	08/30/2013 0904
1,1,2-Trichloroethane	50	51		1	103	70-130	08/30/2013 0904
1,1,1-Trichloroethane	50	52		1	104	70-130	08/30/2013 0904

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ28454-002
Batch: 28454
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	101	70-130	08/30/2013 0904
Trichlorofluoromethane	50	53		1	106	60-140	08/30/2013 0904
Vinyl chloride	50	54		1	108	60-140	08/30/2013 0904
Xylenes (total)	100	110		1	109	70-130	08/30/2013 0904

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28454-003
Batch: 28454
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	110		1	113	5.1	60-140	20	08/30/2013 0927
Benzene	50	53		1	106	0.34	70-130	20	08/30/2013 0927
Bromodichloromethane	50	55		1	109	1.6	70-130	20	08/30/2013 0927
Bromoform	50	54		1	108	1.2	70-130	20	08/30/2013 0927
Bromomethane (Methyl bromide)	50	46		1	92	4.6	60-140	20	08/30/2013 0927
2-Butanone (MEK)	100	110		1	108	2.5	60-140	20	08/30/2013 0927
Carbon disulfide	50	60		1	121	1.4	60-140	20	08/30/2013 0927
Carbon tetrachloride	50	53		1	105	2.4	70-130	20	08/30/2013 0927
Chlorobenzene	50	52		1	104	0.14	70-130	20	08/30/2013 0927
Chloroethane	50	57		1	113	3.0	42-163	20	08/30/2013 0927
Chloroform	50	52		1	105	0.79	70-130	20	08/30/2013 0927
Chloromethane (Methyl chloride)	50	56		1	113	0.62	20-158	20	08/30/2013 0927
Cyclohexane	50	55		1	111	1.4	70-130	20	08/30/2013 0927
1,2-Dibromo-3-chloropropane (DBCP)	50	57		1	115	1.5	70-130	20	08/30/2013 0927
Dibromochloromethane	50	54		1	109	2.1	70-130	20	08/30/2013 0927
1,2-Dibromoethane (EDB)	50	52		1	104	1.5	70-130	20	08/30/2013 0927
1,4-Dichlorobenzene	50	52		1	105	0.031	70-130	20	08/30/2013 0927
1,3-Dichlorobenzene	50	54		1	108	1.2	70-130	20	08/30/2013 0927
1,2-Dichlorobenzene	50	54		1	108	0.24	70-130	20	08/30/2013 0927
Dichlorodifluoromethane	50	43		1	87	1.6	60-140	20	08/30/2013 0927
1,2-Dichloroethane	50	54		1	107	2.5	70-130	20	08/30/2013 0927
1,1-Dichloroethane	50	52		1	104	1.7	70-130	20	08/30/2013 0927
trans-1,2-Dichloroethene	50	56		1	112	0.58	70-130	20	08/30/2013 0927
cis-1,2-Dichloroethene	50	56		1	112	0.69	70-130	20	08/30/2013 0927
1,1-Dichloroethene	50	53		1	106	2.6	70-130	20	08/30/2013 0927
1,2-Dichloropropane	50	52		1	104	2.3	70-130	20	08/30/2013 0927
trans-1,3-Dichloropropene	50	53		1	106	0.49	70-130	20	08/30/2013 0927
cis-1,3-Dichloropropene	50	53		1	106	0.49	70-130	20	08/30/2013 0927
Ethylbenzene	50	54		1	108	0.91	70-130	20	08/30/2013 0927
2-Hexanone	100	98		1	98	5.5	60-140	20	08/30/2013 0927
Isopropylbenzene	50	56		1	112	1.9	70-130	20	08/30/2013 0927
Methyl acetate	50	55		1	109	6.2	15-128	20	08/30/2013 0927
Methyl tertiary butyl ether (MTBE)	50	55		1	109	0.74	70-130	20	08/30/2013 0927
4-Methyl-2-pentanone	100	110		1	107	3.1	60-140	20	08/30/2013 0927
Methylcyclohexane	50	54		1	107	4.8	70-130	20	08/30/2013 0927
Methylene chloride	50	54		1	108	5.0	70-130	20	08/30/2013 0927
Styrene	50	55		1	110	0.36	70-130	20	08/30/2013 0927
1,1,2,2-Tetrachloroethane	50	55		1	109	1.1	70-130	20	08/30/2013 0927
Tetrachloroethene	50	52		1	104	0.26	70-130	20	08/30/2013 0927
Toluene	50	53		1	106	0.46	70-130	20	08/30/2013 0927
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	99	0.36	70-130	20	08/30/2013 0927
1,2,4-Trichlorobenzene	50	54		1	108	3.5	70-130	20	08/30/2013 0927
1,1,2-Trichloroethane	50	51		1	103	0.17	70-130	20	08/30/2013 0927
1,1,1-Trichloroethane	50	53		1	106	2.4	70-130	20	08/30/2013 0927

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ28454-003
Batch: 28454
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	50		1	101	0.11	70-130	20	08/30/2013 0927
Trichlorofluoromethane	50	54		1	109	2.1	60-140	20	08/30/2013 0927
Vinyl chloride	50	54		1	107	1.1	60-140	20	08/30/2013 0927
Xylenes (total)	100	110		1	111	1.2	70-130	20	08/30/2013 0927

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Organochlorine Pesticides by GC - MB

Sample ID: OQ27840-001
Batch: 27840
Analytical Method: 8081B

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 08/22/2013 1633

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
4,4'-DDD	ND		1	0.025	ug/L	08/24/2013 1555
4,4'-DDE	ND		1	0.025	ug/L	08/24/2013 1555
4,4'-DDT	ND		1	0.025	ug/L	08/24/2013 1555
Aldrin	ND		1	0.025	ug/L	08/24/2013 1555
alpha-BHC	ND		1	0.025	ug/L	08/24/2013 1555
alpha-Chlordane	ND		1	0.025	ug/L	08/24/2013 1555
beta-BHC	ND		1	0.025	ug/L	08/24/2013 1555
delta-BHC	ND		1	0.025	ug/L	08/24/2013 1555
Dieldrin	ND		1	0.025	ug/L	08/24/2013 1555
Endosulfan I	ND		1	0.025	ug/L	08/24/2013 1555
Endosulfan II	ND		1	0.025	ug/L	08/24/2013 1555
Endosulfan sulfate	ND		1	0.025	ug/L	08/24/2013 1555
Endrin	ND		1	0.025	ug/L	08/24/2013 1555
Endrin aldehyde	ND		1	0.025	ug/L	08/24/2013 1555
Endrin ketone	ND		1	0.025	ug/L	08/24/2013 1555
gamma-BHC (Lindane)	ND		1	0.025	ug/L	08/24/2013 1555
gamma-Chlordane	ND		1	0.025	ug/L	08/24/2013 1555
Heptachlor	ND		1	0.025	ug/L	08/24/2013 1555
Heptachlor epoxide	ND		1	0.025	ug/L	08/24/2013 1555
Methoxychlor	ND		1	0.10	ug/L	08/24/2013 1555
Toxaphene	ND		1	0.25	ug/L	08/24/2013 1555

Surrogate	Q	% Rec	Acceptance Limit
Decachlorobiphenyl		39	10-122
Tetrachloro-m-xylene		94	46-119

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Organochlorine Pesticides by GC - LCS

Sample ID: OQ27840-002
Batch: 27840
Analytical Method: 8081B
Matrix: Aqueous
Prep Method: 3520C
Prep Date: 08/22/2013 1633

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
4,4'-DDD	0.50	0.54		1	108	70-130	08/24/2013 1610
4,4'-DDE	0.50	0.56		1	111	70-130	08/24/2013 1610
4,4'-DDT	0.50	0.59		1	118	70-130	08/24/2013 1610
Aldrin	0.50	0.55		1	110	70-130	08/24/2013 1610
alpha-BHC	0.50	0.53		1	105	70-130	08/24/2013 1610
alpha-Chlordane	0.50	0.53		1	107	70-130	08/24/2013 1610
beta-BHC	0.50	0.53		1	107	70-130	08/24/2013 1610
delta-BHC	0.50	0.55		1	110	70-130	08/24/2013 1610
Dieldrin	0.50	0.55		1	110	70-130	08/24/2013 1610
Endosulfan I	0.50	0.53		1	106	70-130	08/24/2013 1610
Endosulfan II	0.50	0.52		1	104	70-130	08/24/2013 1610
Endosulfan sulfate	0.50	0.53		1	105	70-130	08/24/2013 1610
Endrin	0.50	0.57		1	114	70-130	08/24/2013 1610
Endrin aldehyde	0.50	0.45		1	90	70-130	08/24/2013 1610
Endrin ketone	0.50	0.53		1	105	70-130	08/24/2013 1610
gamma-BHC (Lindane)	0.50	0.56		1	112	70-130	08/24/2013 1610
gamma-Chlordane	0.50	0.56		1	111	70-130	08/24/2013 1610
Heptachlor	0.50	0.52		1	103	70-130	08/24/2013 1610
Heptachlor epoxide	0.50	0.52		1	104	70-130	08/24/2013 1610
Methoxychlor	0.50	0.55		1	109	70-130	08/24/2013 1610

Surrogate	Q	% Rec	Acceptance Limit
Decachlorobiphenyl		24	10-122
Tetrachloro-m-xylene		93	46-119

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 32544

Client	NCDENR-DWM
Address	217 W Jones St
City / State / Zip Code	Raleigh / NC / 27603
Project Name	Loftin Farm / Perry Res
Project Number	
P.O Number	
Report to Contact	Vincent Antrilli
Telephone No. / Fax No. / Email	919-707-8353
Sampler (Printed Name)	Vincent Antrilli
Waybill No.	
Quote No.	
Page	of
Lot No.	OH22009

Preservative: 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Thio.

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	Analysis	Pesticides	VOCs	1,4 Dioxane (8260)	Remarks / Cooler ID
Number of Containers										2	5	5	
Bottle (See instructions on back)										I	A	A	
Preservative										1	5	5	
Trip Blank	8-21-13	—								—	2	2	
900 Loftin	↓	9:55		✓						2	—	—	
4172A US117A	↓	11:25		✓						—	3	3	

Turn Around Time Required (Prior lab approval required for expedited TAT) ☐ Standard ☐ Rush (Please Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

Relinquished by	Date	Time	Received by	Date	Time
1. Relinquished by / Sampler: Vincent Antrilli Jr. [signature]	8-21-13	2:00	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by: Kelly W Price (FedEx)	8/22/13	0845	4. Laboratory Received by: Kelly W Price	8/22/13	0845

Note/All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack Receipt Temp. 7.8 °C Temp. Blank ☑ Y ☐ N

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Receipt Checklist (SRC)

Client: NCDENR-DWM Cooler Inspected by/date: KWP / 8/22/13 Lot #: OH32009

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Airborne Exp ☐ Other

Yes ☐	No ☑		1. Were custody seals present on the cooler?
Yes ☐	No ☐		2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt 1.5°C / 7.8 °C / °C / °C / °C
Method: ☑ Temperature Blank ☐ Against Bottles
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None melted ice

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☑	No ☐	NA ☐	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by (SRC) phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☑	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☑	NA ☐	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed?
Yes ☑	No ☐		7. Was collection date & time listed?
Yes ☑	No ☐		8. Were tests to be performed listed on the COC?
Yes ☑	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		12. Was adequate sample volume available?
Yes ☑	No ☐		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		14. Were any samples containers missing?
Yes ☐	No ☑		15. Were there any excess samples not listed on COC?
Yes ☐	No ☑	NA ☐	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s)_____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)

Sample(s)_____ were received with bubbles >6 mm in diameter.

Sample(s)_____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/phenol

Sample labels verified by: KWP Date: 8/22/13

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐

SESI employee:_____ Date of response:_____

Comments:_____

North Carolina Department of Environment and Natural Resources
Division of Waste Management
Dexter R. Matthews, Director | Beverly Eaves Purdue, Governor | Dee Freeman, Secretary

MEMORANDUM

Date: August 22, 2013

To: File

From: Vince Antrilli
Raleigh Regional Office
Inactive Hazardous Sites Branch

Re: Perry Residence/Young's Auto – Sampling Trip Summary
NONCD0002839

- Bobby Lutfy and I visited the site on August 21, 2013 to perform well sampling in the area. They sampled the addresses list below:
  4172A US 117 Alt (4172A US 117A)
- All other properties in the area are connected to the public water system.
- This property is completely surrounded by an auto salvage yard. According to Mr. Perry, the business routinely buries waste as deep as 20-30 feet and auto liquids including gas lines are allowed to empty directly onto the ground.
- The samples collected were sent to Shealy Lab on Aug 21, 2013.

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone 919-707-8200

Well Log Sheet

Site Name: Perry Residence
Site Id #: NONCD 0002839
Owner Name: Johnnie Perry
Well Address: 4172 A US 117 A
Well ID #: 4172A US 117 A

Coordinates: _____ N
_____ E

Weather
Temp: 81
Wind: calm
Percip: ptly cloudy

Date: 8-21-13
Sample Team: Antrilli & ~~Rose~~ Luffy

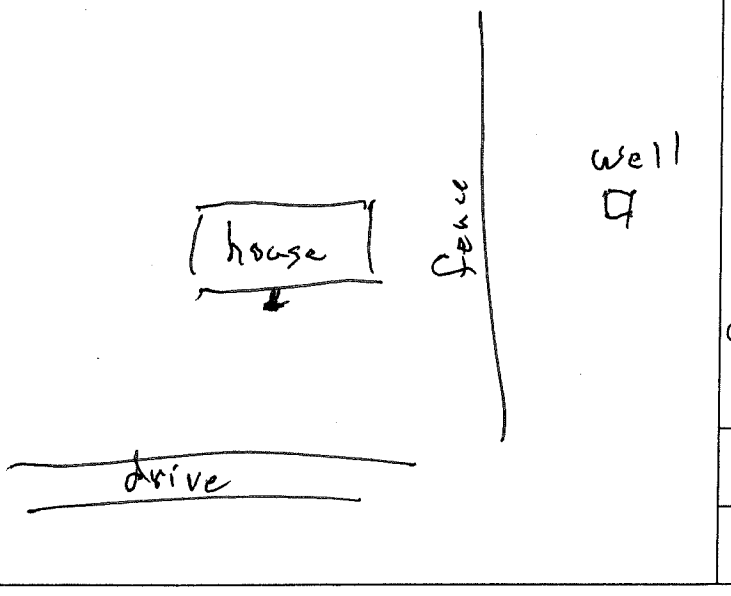
Comments (well construction, etc.) sampled spigot at front of house

Time Interval	5 Min	10 Min	15 Min	20 Min	25 Min
Temp (°C)	23.6	21.3	21.0		
pH	4.29	4.06	4.10		
S.C.	100.5	100.8	101.0		
Turbidity					

Time Sample Collected: 11:25

Water Condition (turbodity, color, odor): clear

Lot Layout



Samples Collected:

- X VOCs (3 - 40ml vials)
- X 1,4 Dioxane (3 - 40ml vials)
- ____ SVOCs/PCBs (1 - 2L Amber bottle)
- ____ Metals (1 - 1L HDPE bottle)
- ____ Dioxin (1 - 1L bottle)
- ____ Pest./Herb. (1 - 2L Amber bottle)

Comments: _____

919-738-1144

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 32544

Client	Report to Contact	Sampler (Printed Name)	Quote No.
NCDENR-DWM	Vincent Antcilli	Vincent Antcilli	
Address	**Telephone No. / Fax No. / Email**	**Waybill No.**	**Page** ___ of ___
217 W Jones St	919-707-8353		
City / **State** / **Zip Code**	**Preservative**		
Raleigh / NC / 27603	1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Thio.		
Project Name			
Loftin Farm / Berry Res			

Project Number	P.O Number	Analysis	Number of Containers	Bottle (See Instructions on back)	Preservative	Lot No.
		Pesticides	2	I	1	
		VOCs	5	A	5	
		1,4 Dioxane (8260)	5	A	5	

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Pesticides	VOCs	1,4 Dioxane (8260)	Remarks / Cooler ID
Trip Blank	8-21-13	—							—	2	2	
900 Loftin	↓	9:55		✓					2	—	—	
4172A US117A	↓	11:25		✓					—	3	3	

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	QC Requirements (Specify)	Possible Hazard Identification
☐ Standard ☐ Rush (Please Specify)	☐ Return to Client ☐ Disposal by Lab		☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: Vincent Antcilli, Jr.	8-21-13	2:00	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by		

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. _____ °C
Temp. Blank ☐ Y / ☐ N

Instructions

Please complete as many fields possible. Contact your lab Project Manager with any questions reagrding Chain of Custody completion.

Bottle Types (Insert letter code for bottle type submitted)

A - 40ml Vial Clear

B - 40ml Vial Amber

C - 125ml Plastic

D - 250ml Plastic

E - 250ml Amber

F - 500ml Plastic

G - 500ml Amber

H - 1L Plastic

I - 1L Amber

J - 1L Widemouth

K - 2L Plastic

L - 2 oz. jar

M - 4 oz. jar

N - 9 oz jar

O - 100ml sterile

Perry Residence/Young Auto, Wayne County Addresses (NONCD0002839)

Well Address	Parcel ID#	Owner / Mailing Address	Phone # / email	Sampling Permission
4172 S US 117 Alt Hwy	2585683303	Ricky Young / Youngs Auto Salvage 4172 S US 117 Alt Hwy Dudley, NC 28333	919-731-2442	No Well. Connected to County Water System
4172A S US 117 Alt Hwy	2585670878	Johnnie Perry 4172A S US 117 Alt Hwy Dudley, NC 28333	919-734-8455	yes, phone
4240 S US 117 Alt Hwy	2585663892	Oliver Best 4864 S US 117 Alt Hwy Dudley, NC 28333		Connected to County water system
4260 S US 117 Alt Hwy	2585662557	Gwaltney's Car Sales Inc 851 O'Berry Rd Dudley, NC 28333		Connected to County water system
4219 S US 117 Alt Hwy	2585667989	C & D Investments Co Inc 1706 Brentwood Dr Newton, NC 28658		Connected to County water system
4237 S US 117 Alt Hwy	2585666766	Danny Smith PO Box 270 Dudley, NC 28333		Connected to County water system

Perry Residence/Young Auto

Wayne Co

NONCD0002839

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Dexter R. Matthews
Director

Pat McCrory
Governor

John E. Skvarla, III
Secretary

August 1, 2013

Oliver Best
4240 S US 117 Alt Hwy
Dudley, NC 28333

RE: Water Supply Well Sampling – Perry Residence/Young Auto site (NONCD 0002839)
Well located at 4240 S US 117 Alt Hwy, Dudley, NC

Dear Mr. Best:

The Division of Waste Management would like to request that we sample your well. This sampling is part of an investigation of groundwater contamination detected in your area. You do not have to be present to have your well sampled and there is no cost to you. Samples will be collected from either a faucet at the well or on the exterior of your home. The laboratory results will be forwarded to you as soon as possible.

Please contact me by one of the following ways to confirm that ***we may*** collect a sample from your well. You can reach me by calling **(919) 707-8353**, emailing me at vincent.antrilli@ncdenr.gov or by responding to this letter stating that you are granting permission for the State to sample your well. If you have any questions, comments, or concerns, please do not hesitate to contact me.

Sincerely,

Vincent Antrilli, Jr.

Vincent Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-707-8200 \ Internet: http://portal.ncdenr.org/web/wm

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Dexter R. Matthews
Director

Pat McCrory
Governor

John E. Skvarla, III
Secretary

August 1, 2013

Gwaltney's Car Sales Inc
851 O'Berry Rd
Dudley, NC 28333

RE: Water Supply Well Sampling – Perry Residence/Young Auto site (NONCD 0002839)
Well located at 4260 S US 117 Alt Hwy, Dudley, NC

Dear Sirs:

The Division of Waste Management would like to request that we sample your well. This sampling is part of an investigation of groundwater contamination detected in your area. You do not have to be present to have your well sampled and there is no cost to you. Samples will be collected from either a faucet at the well or on the exterior of your home. The laboratory results will be forwarded to you as soon as possible.

Please contact me by one of the following ways to confirm that ***we may*** collect a sample from your well. You can reach me by calling **(919) 707-8353**, emailing me at vincent.antrilli@ncdenr.gov or by responding to this letter stating that you are granting permission for the State to sample your well. If you have any questions, comments, or concerns, please do not hesitate to contact me.

Sincerely,

Vincent Antrilli, Jr.

Vincent Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

mapquest

Trip to:

4172a Us 117 Alt

Dudley, NC 28333-7240

60.34 miles / 1 hour 13 minutes

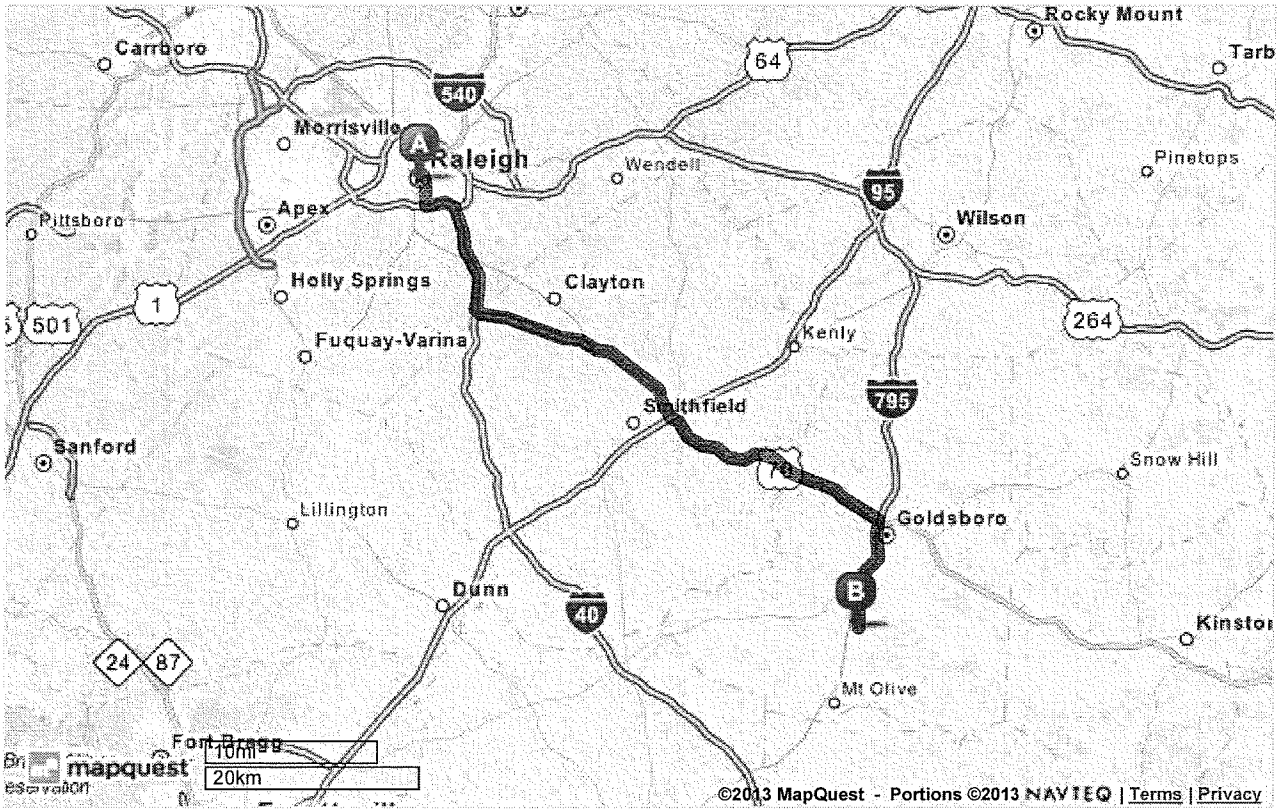
Notes

217 W Jones St, Raleigh, NC 27603-6100

1. Start out going **east** on **W Jones St** toward **N McDowell St / US-70 W / US-401 N / NC-50 N**. Map	**0.3 Mi** *0.3 Mi Total*
2. Turn **right** onto **N Blount St**. Map *N Blount St is just past N Wilmington St* *If you reach N Person St you've gone a little too far*	**1.3 Mi** *1.6 Mi Total*
3. **N Blount St** becomes **Hammond Rd**. Map	**0.7 Mi** *2.3 Mi Total*
4. Merge onto **I-40 E** toward **I-440 / Rocky Mount**. Map	**10.4 Mi** *12.7 Mi Total*
5. Merge onto **US-70 E** via **EXIT 309** toward **Smithfield / Goldsboro**. Map	**17.6 Mi** *30.4 Mi Total*
6. Merge onto **US-70-BYP E** via **EXIT 334** on the **left**. Map	**2.9 Mi** *33.3 Mi Total*
7. Turn **slight left** onto **US-70 E**. Map	**18.0 Mi** *51.3 Mi Total*
8. Merge onto **US-117 S** toward **Wilmington**. Map	**6.2 Mi** *57.5 Mi Total*
9. Turn **left** onto **US-117-ALT**. Map *US-117-ALT is 0.1 miles past Fulton Rd* *If you reach Oberry Rd you've gone about 3.6 miles too far*	**2.8 Mi** *60.3 Mi Total*
10. **4172A US 117 ALT**. Map *Your destination is 0.4 miles past Ridgefield Dr* *If you reach Brooks Terrace Rd you've gone about 0.4 miles too far*	

4172a Us 117 Alt, Dudley, NC 28333-7240

Total Travel Estimate: **60.34 miles - about 1 hour 13 minutes**



Kirby, Wade

From: Steve Hamilton <SteveH@waynewaterdistricts.com>
Sent: Thursday, August 08, 2013 9:51 AM
To: Kirby, Wade
Subject: RE: Perry Residence/Young Auto, Dudley, Wayne County

We have a Young's Auto at 4172 US 117 ALT HWY, but, nothing for John Perry
Nothing for C&D Investments
Nothing for Danny Smith
We do show an Oliver Best at 4240 and Gwaltney's Auto Sales at 4260 US 117 ALT HWY

Steve Hamilton
District Manager
Wayne Water Districts

From: Kirby, Wade [mailto:wade.kirby@ncdenr.gov]
Sent: Thursday, August 08, 2013 9:13 AM
To: Steve Hamilton
Subject: Perry Residence/Young Auto, Dudley, Wayne County

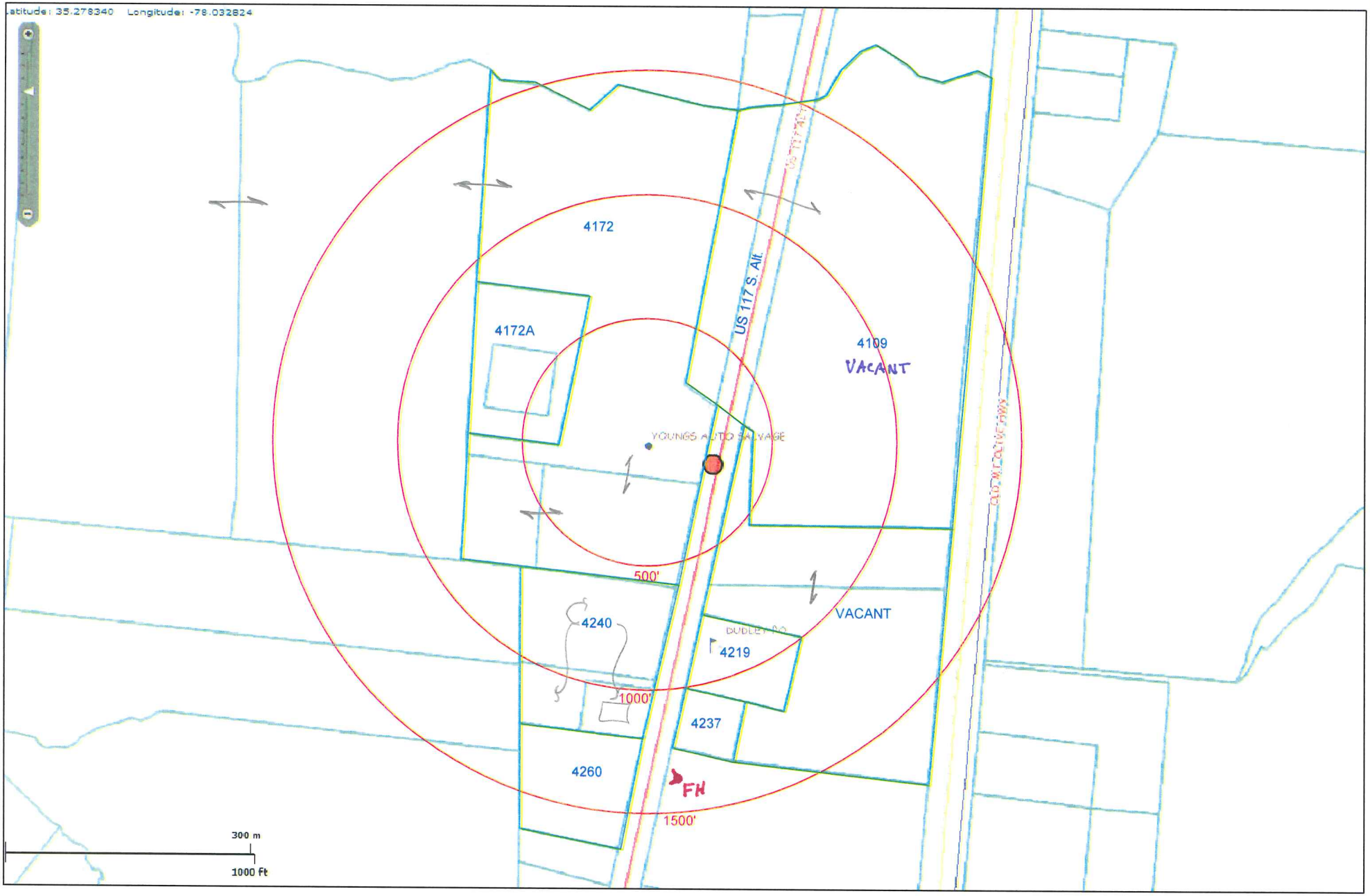
Mr. Hamilton,

My name is Wade Kirby and I worked for the NC Department of Environment and Natural Resources, Division of Waste Management, Superfund Section. We have a site in Dudley and would like to know if five properties have been connected to the Wayne County Water System. If the property is being billed for water, then the assumption is the property is connected. Would one of your staff be able to assist us in this? Below are the properties we are interested in if they are being billed:

4172A S US 117 Alt Hwy – John Perry, Dudley, NC
4219 S US 117 Alt Hwy – C&D Investments Co, Inc
4237 S US 117 Alt Hwy – Danny Smith, Dudley, NC
4240 S US 117 Alt Hwy – Oliver Best, Dudley, NC
4260 S US 117 Alt Hwy – Gwaltney's Car Sales, Inc, Dudley, NC

Thank you in advance for your assistance.

Wade Kirby, PE, PG
Environmental Engineer
NCDENR/DWM/SF



Perry Residence/Young Auto

Wayne Co

NONCD0002839

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Dexter R. Matthews
Director

Pat McCrory
Governor

John E. Skvarla, III
Secretary

August 1, 2013

Ricky Young
4172 S US 117 Alt Hwy
Dudley, NC 28333

RE: Water Supply Well Sampling – Perry Residence/Young Auto site (NONCD 0002839)
Well located at 4172 S US 117 Alt Hwy, Dudley, NC

Dear Mr. Young:

The Division of Waste Management would like to request that we sample your well. This sampling is part of an investigation of groundwater contamination detected in your area. You do not have to be present to have your well sampled and there is no cost to you. Samples will be collected from either a faucet at the well or on the exterior of your home. The laboratory results will be forwarded to you as soon as possible.

Please contact me by one of the following ways to confirm that ***we may*** collect a sample from your well. You can reach me by calling **(919) 707-8353**, emailing me at vincent.antrilli@ncdenr.gov or by responding to this letter stating that you are granting permission for the State to sample your well. If you have any questions, comments, or concerns, please do not hesitate to contact me.

Sincerely,

Vincent Antrilli, Jr.

Vincent Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-707-8200 \ Internet: http://portal.ncdenr.org/web/wm

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Dexter R. Matthews
Director

Pat McCrory
Governor

John E. Skvarla, III
Secretary

August 1, 2013

Johnnie Perry
4172A S US 117 Alt Hwy
Dudley, NC 28333

RE: Water Supply Well Sampling – Perry Residence/Young Auto site (NONCD 0002839)
Well located at 4172A S US 117 Alt Hwy, Dudley, NC

Dear Mr. Perry:

The Division of Waste Management would like to request that we sample your well. This sampling is part of an investigation of groundwater contamination detected in your area. You do not have to be present to have your well sampled and there is no cost to you. Samples will be collected from either a faucet at the well or on the exterior of your home. The laboratory results will be forwarded to you as soon as possible.

Please contact me by one of the following ways to confirm that ***we may*** collect a sample from your well. You can reach me by calling **(919) 707-8353**, emailing me at vincent.antrilli@ncdenr.gov or by responding to this letter stating that you are granting permission for the State to sample your well. If you have any questions, comments, or concerns, please do not hesitate to contact me.

Sincerely,

Vincent Antrilli, Jr.

Vincent Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Dexter R. Matthews
Director

Pat McCrory
Governor

John E. Skvarla, III
Secretary

August 1, 2013

C & D Investments Co Inc
1706 Brentwood Dr
Newton, NC 28658

RE: Water Supply Well Sampling – Perry Residence/Young Auto site (NONCD 0002839)
Well located at 4219 S US 117 Alt Hwy, Dudley, NC

Dear Sirs:

The Division of Waste Management would like to request that we sample your well. This sampling is part of an investigation of groundwater contamination detected in your area. You do not have to be present to have your well sampled and there is no cost to you. Samples will be collected from either a faucet at the well or on the exterior of your home. The laboratory results will be forwarded to you as soon as possible.

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John E. Skvarla, III
Secretary

August 1, 2013

Danny Smith
PO Box 270
Dudley, NC 28333

RE: Water Supply Well Sampling – Perry Residence/Young Auto site (NONCD 0002839)
Well located at 4237 S US 117 Alt Hwy, Dudley, NC

Dear Mr. Smith:

The Division of Waste Management would like to request that we sample your well. This sampling is part of an investigation of groundwater contamination detected in your area. You do not have to be present to have your well sampled and there is no cost to you. Samples will be collected from either a faucet at the well or on the exterior of your home. The laboratory results will be forwarded to you as soon as possible.

Please contact me by one of the following ways to confirm that ***we may*** collect a sample from your well. You can reach me by calling **(919) 707-8353**, emailing me at vincent.antrilli@ncdenr.gov or by responding to this letter stating that you are granting permission for the State to sample your well. If you have any questions, comments, or concerns, please do not hesitate to contact me.

Sincerely,

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Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

SITE HEALTH AND SAFETY PLAN

A. General Information

Site Name Perry Young ID # NONCD 000 2839

Location 4172A US 117 South Alternate, Dudley, Wayne Co., NC

Proposed Date of Investigation 8/13/13 to 9/13/13
Date of Briefing 8/1/13
Date of Debriefing 9/16/13

Nature of Visit (check one):

On-Site Reconnaissance	
Off-Site Reconnaissance	
Sampling	X
Sampling Overview	
Remediation Overview	

Health Department Official Contacted Kevin Whitely's voice mail
Date of Contact 8/1/13

Site Investigation Team: All site personnel have read the Site Health and Safety Plan and are familiar with its provisions.

Personnel	Responsibilities	Signature
Team 1 Vince Antrilli	team leader, sampling	
Team 1 Wade Kirby	sampling	
Team 1 Bobby Lutfy	sampling	

Plan Preparation:

Prepared By: David Lilley, Industrial Hygiene Consultant

Reviewed By: Jim Bateson, Superfund Section Chief

B. SITE/WASTE CHARACTERISTICS

Waste Type(s) __X__ Liquid _____ Solid _____ Sludge _____ Gas __X__ Vapor
Characteristics _____ Corrosive __X__ Ignitable _____ Radioactive
__X__ Volatile __X__ Toxic _____ Reactive _____ Other

List Known or Suspected Hazards (physical, chemical biological or radioactive) on Site and their toxicological effects. Also, if known, list chemical amounts

HAZARD	WARNING PROPERTIES	EXPOSURE LIMIT
Methyl tert-butyl ether	Odor Threshold (OT) = 0.33 ppm	50 ppm
Perchloroethylene	Odor Threshold (OT) = 1 ppm	25 ppm

UNDERGROUND UTILITIES CHECKLIST

Utility	Locator/Contact Person	Phone #	Date of Location
Power			
Telephone			
Gas			
Water			
Sewer			

Call made by:

ID # NONCD 000 2839

Facility Description: Size unknown Buildings yes
Disposal Methods Being Investigated unknown

Unusual Features on Site (dike integrity, power lines, terrain, etc.):
None known

History of the Site: Residential well near an auto salvage yard with history of contamination bouncing around 2L

C. HAZARD EVALUATION

The site can be toured and sampled in level D protection. PVC gloves will be worn while collecting water samples.

D. WORK PLAN INSTRUCTION

Map or Sketch Attached? yes
Perimeter Identified? no
Command Post Identified? no
Zones of Contamination Identified? no
Personal Protective Equipment/Level of Protection: C X D

Modifications Wear goggles, face shield, and PVC gloves while preparing acid preserved samples, goggles and PVC gloves while collecting acid preserved samples. Avoid breathing acid vapors.

ID # NONCD 000 2839

Surveillance Equipment:

_____ HNU	_____ Detector Tubes and Pumps
_____ OVA	_____ 02 Meter
_____ Explosimeter	_____ Radiation Monitor

Decontamination Procedures

_____Level C Respirator wash, respirator removal, suit wash (if needed), suit removal, boot wash, boot removal and glove removal.

__X__Level D Boot wash and rinse and boot removal, suit removal, glove and goggle removal.

Modifications Dispose of trash properly, on-site if possible.

Work Schedule/Visit Objectives The purpose of this visit is to determine if the site poses a threat to the public health or environment because of releases of contaminants to soil, surface water, groundwater, or air. Sampling may consist of groundwater sampling.

EMERGENCY PRECAUTIONS

Route of Exposure	First Aid
Eyes	irrigate immediately
Skin	soap and water wash
Inhalation	fresh air and artificial respiration
Ingestion	get medical attention immediately

ID # NONCD 000 2839

Location of Nearest Phone: nearby residences

Hospital (Address and Phone Number)

Wayne Memorial Hospital, 2700 Wayne Memorial Drive, Goldsboro, NC (919) 736-1110

Emergency Transportation Systems (Phone Numbers)

Fire 911

Ambulance 911

Rescue Squad 911

Emergency Route to Hospital see next page

PREVAILING WEATHER CONDITIONS AND FORECAST

EQUIPMENT CHECKLIST

___ Air purifying respirator	_X_ First Aid Kit
___ Cartridges for respirator	_X_ 3 gal. Deionized H20
_X_ Eye Wash Unit	_X_ Rain suit
___ HNU	_X_ Gloves (PE/PVC/nitrile/cloth)
___ OVA	_X_ Boots/Boot Covers
___ Explosimeter	_X_ Coveralls (tyvek/saranex)
___ Radiation Monitor	_X_ Eye Protection (goggles/shield)
_X_ Decontamination Materials	_X_ Hard Hat

STATE POISON CONTROL CENTER
1-800-848-6946

North Carolina OSHA
1-800-LABOR-NC

Please submit the Air Monitoring and Injury Report Form.

mapquest

Trip to:

2700 Wayne Memorial Dr

Goldsboro, NC 27534-9494

11.96 miles / 17 minutes

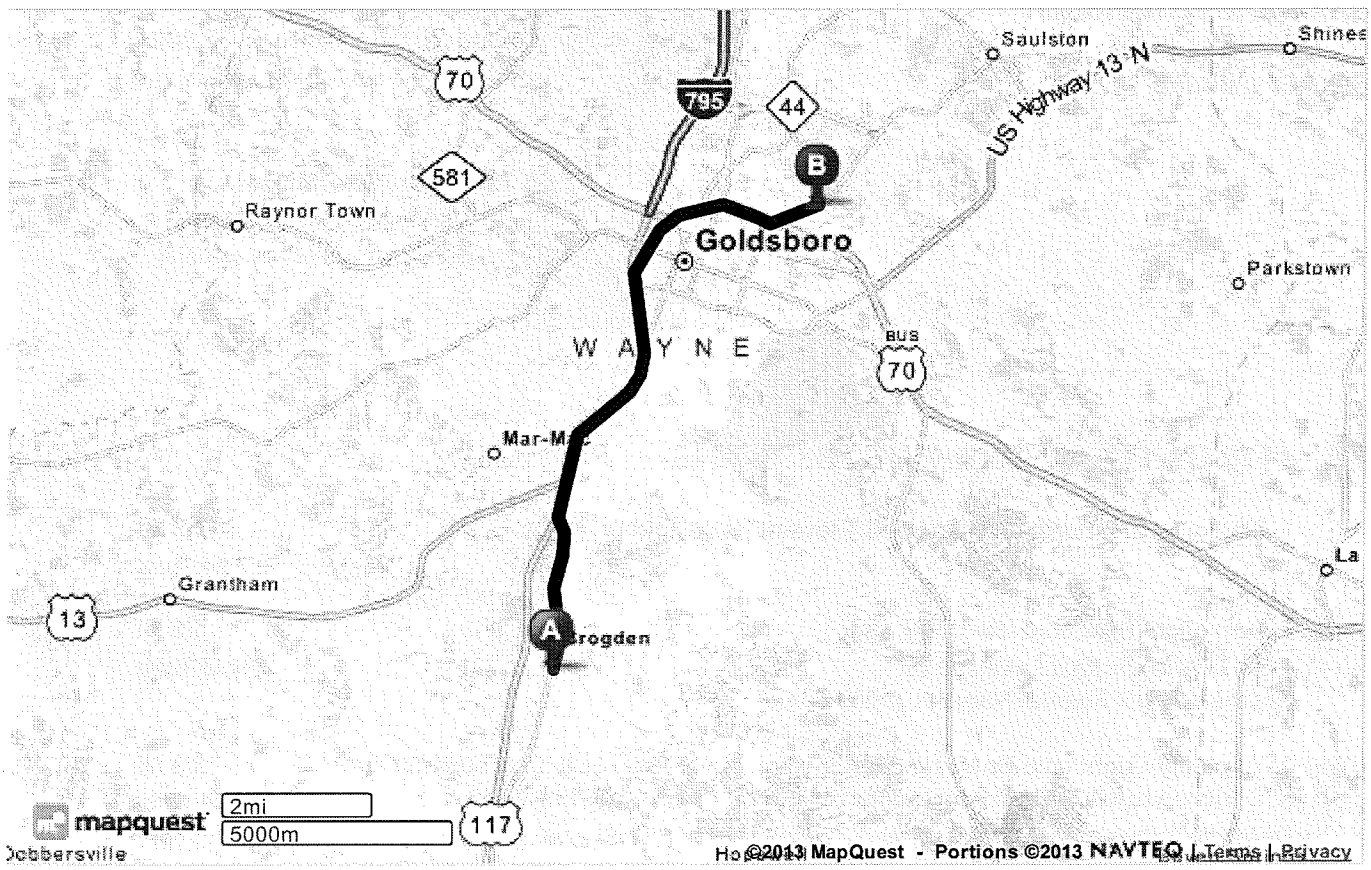
Notes

A **4172 Us 117 Alt**, Dudley, NC 28333-7240

1. Start out going **north** on **US-117-ALT** toward **Ridgefield Dr**. Map	**2.8 Mi** *2.8 Mi Total*
2. Turn **slight right** onto **US-117 N**. Map *US-117 N is just past Lakeside Dr* *Shumate Faulk Funeral Home is on the corner*	**5.1 Mi** *7.9 Mi Total*
3. Turn **slight right** onto **Dr Martin Luther King Junior Expy / US-13 N / US-117-BYP N**. Continue to follow **Dr Martin Luther King Junior Expy / US-13 N**. Map *Dr Martin Luther King Junior Expy is 0.3 miles past W Elm St*	**2.9 Mi** *10.7 Mi Total*
4. Take the **Wayne Mem Drive** ramp toward **Wayne Comm College / Goldsboro High School**. Map	**0.3 Mi** *11.0 Mi Total*
5. Turn **left** onto **Wayne Memorial Dr**. Map *If you reach US-70 E you've gone about 0.1 miles too far*	**1.0 Mi** *12.0 Mi Total*
6. **2700 WAYNE MEMORIAL DR** is on the **right**. Map *Your destination is 0.1 miles past Medical Office Pl* *If you reach Cox Blvd you've gone about 0.1 miles too far*	

B **2700 Wayne Memorial Dr**, Goldsboro, NC 27534-9494

Total Travel Estimate: **11.96 miles - about 17 minutes**



HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Methyl-tert-butyl ether

I. PHYSICAL/CHEMICAL PROPERTIES

	Reference
Chemical Formula $C_5H_{12}O$	1
Natural Physical State at 25°C liquid	2
Vapor Pressure 245 mm Hg at 20°C	1
Melting Point _____ °F/°C Boiling Point 55.2 °F/°C	1
Flash Point (open or closed cup) -109 °C/°F	1
Solubility - H_2O 4.8g/100g	1
Other _____	_____

Physical Features: (odor, color, etc.) Colorless liquid, used as an octane booster in gasoline (1,2)

II. TOXICOLOGICAL DATA

Standards: 50 ppm (4) TLV _____ PEL _____ IDLH _____

Routes of Exposure: Inhalation, Ingestion, Skin and/or Eye contact

Acute/Chronic Symptoms: Skin and eye irritation, sleepiness, loss of appetite, dizziness, excitation (inhalation). Skin contact can cause dryness and cracking. (3)

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Skin contact: irrigate immediately; Skin contact: soap and water wash immediately.

Chemical Name: Methyl-tert-butyl ether

III. HAZARDOUS CHARACTERISTICS — Reference

A. Combustibility Yes X No ____ — 2

Toxic by-products When heated to decomposition, emits acrid smoke and irritating fumes — 3

B. Flammability LEL _____ UEL _____

C. Reactivity Hazard Unstable in acid solution, exposure of ethers to sunlight causes formation of explosive peroxides — 2,3

D. Corrosivity Hazard yes/no pH: _____

Neutralizing agent: _____

E. Radioactive Hazard — Exposure Rate

Background	yes/no	_____	_____
Alpha particles	yes/no	_____	_____
Beta particles	yes/no	_____	_____
Gamma radiation	yes/no	_____	_____

IV. REFERENCES

1. The Merck Index, 10th Edition.
2. The Condensed Chemical Dictionary, Hawley, 11th Edition, 1987.
3. Encyclopaedia of Occupational Health and Safety, International Labor Office, 3rd Edition, 1983.
4. Threshold limit Values, ACGIH, 2007

HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Perchloroethylene

I. PHYSICAL/CHEMICAL PROPERTIES

Reference

Chemical Formula C2 C14 1

Natural Physical State at 25oC liquid 2

Vapor Pressure 14 mm Hg at 20oC 2

Melting Point -2 oF/oC Boiling Point 250 oF/oC 2

Flash Point (open or closed cup) N/A oC/oF 2

Solubility - H_2O 0.015% 2
Other misc with alcohol, ether, chloroform, benzene 1

Physical Features: (odor, color, etc.) colorless liquid with an odor like ether or chloroform IP=9.32 eV (2) OVA Relative Response = 70%

II. TOXICOLOGICAL DATA

Standards: 25 ppm(3)TLV 100 ppm(4)PEL suspect human carcinogen (2)IDLH

Routes of Exposure: Inhalation, Ingestion, Skin and/or Eye Contact (2)

Acute/Chronic Symptoms: Irritation of eyes, nose, and throat, nausea, flushed face and neck, vertigo, dizziness, incoordination, headache, carcinogen (2)

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately.

Chemical Name: Perchloroethylene

III. HAZARDOUS CHARACTERISTICS

		Reference
A.	Combustibility Yes __ No X Toxic by-products	2
B.	Flammability LEL none UEL none	2

C. Reactivity Hazard Incompatible with strong oxidizers, chemically active metals, such as barium, lithium, and beryllium & barium; caustic soda; sodium hydroxide, potash (2)

D. Corrosivity Hazard yes/no pH:

Neutralizing agent:

E. Radioactive Hazard Exposure Rate

Background	yes/no
Alpha particles	yes/no
Beta particles	yes/no
Gamma radiation	yes/no

IV. REFERENCES

1. The Merck Index, 11th Edition, 1989
2. NIOSH Pocket Guide to Chemical Hazards, 1990
3. Threshold Limit Values and Biological Exposure Indices for 2007 ACGIH.
4. 29 CFR 1910.1000, NC PEL

CORVEL

WC Authorization | Physician's Report | Pharmacy Guide

MAILING ADDRESS: P.O. Box 77880, Charlotte, NC 28271
800-365-5998 www.corvel.com

EMPLOYER: Please complete the top section and give to the injured employee to take with them to their authorized treating physician. If you already have transitional duty job descriptions available, please attach a copy for the treating physician's review.

Name of Employee: **Last:**	**First:**
Date of Injury:	
Name of Employer:	
Employer Signature:	Treating Physician:

EMPLOYEE: Please take this form with you to an authorized treating physician. Please have the physician complete the middle section and return this immediately to your employer. The bottom section is for you to show the pharmacist should you need to have any prescriptions filled as prescribed by your authorized treating physician for this work related injury.

AUTHORIZED PHYSICIAN, PLEASE COMPLETE

Diagnosis: _____

A post accident drug test (check one) ( ) **has** been completed ( ) **has not** been completed

In accordance with this patient's physical capability, check all that apply:

( ) May resume work immediately, no restriction.
( ) May resume work immediately with the following restrictions:
- ( ) Sedentary work (sitting, occasional walking, standing, lifting less than 10 pounds)
- ( ) Light work (lifting less than 20 pounds)
- ( ) Medium work (lifting less than 50 pounds)
- ( ) Heavy work (lifting less than 100 pounds)
- ( ) Normal shift
- ( ) Limited hours: ____ hrs, _____hrs, _____hrs per day
- ( ) Other: _____

( ) Repetitive Motion Restrictions (specific to hand/arm injuries):

Frequency	Left	Right
No Use		
Occasional <33% of time		
Frequent 34-66% of time		
Regular 67-100% of time		

( ) Patient may return to work at full duty on (date) _____
( ) Patient has a return appointment on (date) _____ at (time) _____

Please indicate any referrals that are required: _____

Physician's Signature	Date	Physician's Name (type or print)

Physician Offices – Be sure to contact CorVel's Claim Department at 800-365-5998 for authorization for the referral.

PHARMACIST: Please use the Injured Worker's **SSN and Date of Injury (SSN+MMDDYYYY)** as their 17 digit Identification Number when entering information to process an online claim to CorVel on behalf of Department of Environmental and Natural Resources injured employees. Pharmacies can contact the **CorVel Customer Service at 800-563-8438 or CVS/Caremark Pharmacy Help Desk at 877-876-7216,** for assistance with claims processing.

DO NOT CHARGE THE PATIENT FOR THE PRESCRIPTION.

CHAIN NAME	CHAIN NAME	CHAIN NAME	CHAIN NAME
Bi-Lo Pharmacy	Horizon Pharmacy	Revco drugs	VIX Pharmacy
Bi-Mart	HyVee Drugtown	Rite-Aid drugs	Walgreen's
Brooks Drugs	J & J Pharmacy	RX Discount Pharmacy	Wal-Mart Pharmacy
Brookshire Brothers	Joel & Jerry's	Sack-n-Save	Wegman Pharmacy
Cub Pharmacy	Kash N Karry	Sav-A-Lot	Winn-Dixie
CVS Drugs	Kerr Drugs	Sams Club Pharmacy	
Drug Emporium	K-mart phcy	Save Mart	
Eckerds(all others)	Long's Phcy	Stop N Shop	
Franck's Pharmacy	Medicine Shoppe	Super D	
Fred Meyer	Medistat Phcy	Super Valu	
Fred's Pharmacy	Milner-Rushing Drugs	Super X (HSI)	
Giant Pharmacy	Pathmark Pharmacy	Tom Thumb Phcy	
Goodings	Perry Drg Str	Tops Pharmacy	
Hannaford Food &	Phar-Mor	Tri Daly Drugs	

Group Number: RXFFWC311
CCRx BIN: 004336
PCN: ADV Rev. 6/10
Dept. of Environ. & Natural Res.

CORVEL

*** All participating pharmacies have not been included on this list. Please have your pharmacy call regarding any questions/ authorizations 800-563-8438.**